

REMARKS

Applicants thank the Examiner for the thorough consideration provided the present application. Claims 1-11, 14-24, and 26-36 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Claims 1-5, 7-18, and 20-25 stand rejected under 35 U.S.C. §103 as being unpatentable over Berger et al. (U.S. Patent 6,528,145) in view Nishide et al. (U.S. Patent 5,827,605) and Zak (U.S. Patent 6,006,427). This rejection is respectfully traversed.

The Examiner relies on Berger et al. to show an inorganic substrate and two print circuit boards located on two sides of the inorganic substrate. The Examiner admits that Berger et al. do not teach the circuit boards being organic print circuit boards nor a passive component formed in the inorganic substrate. The Examiner relies on Nishide et al. to teach a passive component formed on an inorganic substrate. The Examiner relies on Zak to teach print circuit boards being organic print circuit boards. The Examiner feels it would have been obvious to use organic print circuit boards as taught by Zak and at least a passive component as taught by Nishide et al. in the Berger et al. device.

Applicants submit that the claims as presently presented are not obvious over this combination of references. Claims 1 and 14 have been amended first to indicate that the organic substrates are integrated with the inorganic substrate. Also, the claims state that a bonding layer bonds the inorganic substrates. The limitation of the bonding layer was previously found in

claims 13 and 25 which have now been cancelled. In discussing claims 13 and 25, the Examiner points out that Berger et al. teaches a bonding layer in the form of a ball grid array formed between the two substrates. In the response to arguments section of the action, the Examiner agrees that the bonding layer of the present invention is quite different from the BGA but that the reference still uses the BGA to bond the substrate to the PCB.

Claims 1 and 14 now make it clear that the organic and inorganic substrates are not merely bonded, but integrated. A ball grid array would not integrate the substrates. Further, a ball grid array does not form a bonding layer, but individual bonding points. Accordingly, Applicants submit that claims 1 and 14 are allowable over these references individually or in combination.

Claim 26 has been added which includes the limitation of claim 1 plus the limitations of claim 12. This claim also includes the new limitation added to claim 1 that the organic and inorganic substrates are integrated. Thus, Applicants submit that claim 26 is likewise allowable for the same reasons pointed out above with regard to claims 1 and 14. In addition, this claim recites the covering layer which covers the inorganic substrate and integrates with the organic substrate to fully embed the inorganic substrate in the organic substrate. Applicants submit that this type of covering layer is presently defined which integrates the two substrates is not seen in the references and is likewise allowable.

Claims 2-11, 15-24 and 27-36 depend from these allowable independent claims and as such, are also considered to be allowable. In addition, each of these claims have other features

which make them additionally allowable. These dependent claims further recite the various materials, the type of passive components and the make-up of the organic substrate as a plurality of print circuit boards. Accordingly, these claims are considered to be additionally allowable.

Claims 6 and 19 stand rejected under 35 U.S.C. § 103 as being obvious over Berger et al., Nishide et al. and Zak as applied above and further in view of Czjakowski et al. (U.S. Patent 6,613,978). The Examiner cites the Czjakowski et al. reference to teach circuit boards formed on a ceramic substrate. Accordingly, even if this reference does teach this feature, Applicants submit that these claims are still allowable based on their dependency from allowable claims 1 and 14.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied upon by the Examiner, either alone or in combination. In view of this, reconsideration of the rejection and allowance of all of the claims are respectfully requested.

If the Examiner has any questions or comments, please contact Robert F. Gnuse, Reg. No. 27,295 at the offices of Birch, Stewart, Kolasch & Birch, LLP.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants hereby petition for an extension of one (1) month to October 28, 2005 in which to file a reply to the Office Action. The required fee of \$120.00 is enclosed herewith.

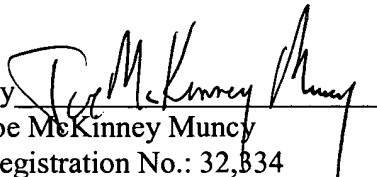
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: November 25, 2005

Respectfully submitted,

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